User's Guide

L1730SF

Make sure to read the **Important Precautions** before using the product. Keep the User's Guide(CD) in an accessible place for furture reference.

See the label attached on the back cover and quote this information to your dealer when you require service.



Important Precautions

This unit has been engineered and manufactured to ensure your personal safety, however improper use may result in potential eletrical shock or fire hazards. In order to allow the proper operation of all safeguards incorporated in this display, observe the following basic rules for its installation, use, and servicing.

On Safety

Use only the power cord supplied with the unit. In case you use another power cord, make sure that it is certified by the applicable national standards if not being provided by the supplier. If the power cable is faulty in any way, please contact the manufacturer or the nearest authorized repair service provider for a replacement.

The power supply cord is used as the main disconnection device. Ensure that the socket-outlet is easily accessible after installation.

Operate the display only from a power source indicated in the specifications of this manual or listed on the display. If you are not sure what type of power supply you have in your home, consult with your dealer.

Overloaded AC outlets and extension cords are dangerous. So are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your service technician for replacement.

Do not Open the Display.

- There are no user serviceable components inside.
- There are Dangerous High Voltages inside, even when the power is OFF.
- Contact your dealer if the display is not operating properly.

To Avoid Personal Injury:

- Do not place the display on a sloping shelf unless properly secured.
- Use only a stand recommended by the manufacturer.

To Prevent Fire or Hazards:

- Always turn the display OFF if you leave the room for more than a short period of time. Never leave the display ON when leaving the house.
- Keep children from dropping or pushing objects into the display's cabinet openings. Some internal parts carry hazardous voltages.
- Do not add accessories that have not been designed for this display.
- During a lightning storm or when the display is to be left unattended for an extended period of time, unplug it from the wall outlet.

On Installation

Do not allow anything to rest upon or roll over the power cord, and do not place the display where the power cord is subject to damage.

Do not use this display near water such as near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool. Displays are provided with ventilation openings in the cabinet to allow the release of heat generated during operation. If these openings are blocked, built-up heat can cause failures which may result in a fire hazard. Therefore, NEVER:

- Block the bottom ventilation slots by placing the display on a bed, sofa, rug, etc.
- Place the display in a built-in enclosure unless proper ventilation is provided.
- Cover the openings with cloth or other material.
- Place the display near or over a radiator or heat source.

Do not rub or strike the Active Matrix LCD with anything hard as this may scratch, mar, or damage the Active Matrix LCD permanently.

Do not press the LCD screen with your finger for a long time as this may cause some afterimages.

Some dot defects may appear as Red, Green or Blue spots on the screen. However, this will have no impact or effect on the display performance.

If possible, use the recommended resolution to obtain the best image quality for your LCD display. If used under any mode except the recommended resolution, some scaled or processed images may appear on the screen. However, this is characteristic of the fixed-resolution LCD panel.

On Cleaning

- Unplug the display before cleaning the face of the display screen.
- Use a slightly damp (not wet) cloth. Do not use an aerosol directly on the display screen because over-spraying may cause electrical shock.

On Repacking

 Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it in its original material.

On Disposal

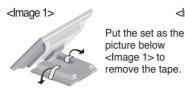
- The fluorescent lamp used in this product contains a small amount of mercury.
- Do not dispose of this product with general household waste. Disposal of this product must be carried out in accordance to the regulations of your local authority.

■ Before setting up the monitor, ensure that the power to the monitor, the computer system, and other attached devices is turned off.

</mage 2>

Positioning your display

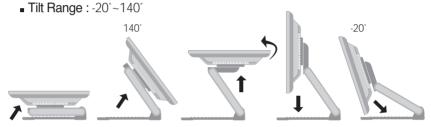
1. Remove the tape.





Do not remove the tape with the set up side down as the <Image 2> The base part may spring up to injure your hand.

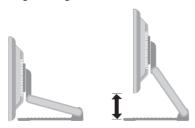
2. Adjust the position of the panel in various ways for maximum comfort.



Ergonomic

It is recommended that in order to maintain an ergonomic and comfortable viewing position, the forward tilt angle of the monitor should not exceed 5 degrees.

■ Height Range: maximum 2.41inch (61.3mm)



■ Landscape & Portrait: You can rotate the panel 90° clockwise. (* For detailed information, please refer to the Pivot Sofeware CD provided.)



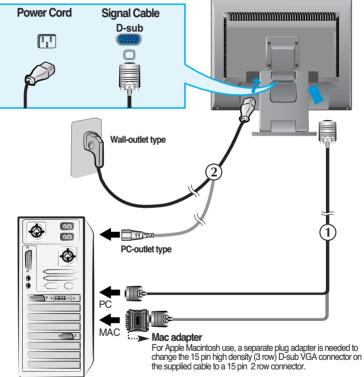
Connecting the Display

Using the Computer

- 1. Connect the signal cable. When attached, tighten the thumbscrews to secure the connection. ①
- 2. Connect the power cord into a proper power outlet that is easily accessible and close to the display. ②

NOTE

- This is a simplified representation of the rear view.
- This rear view represents a general model: your display may differ from the view as shown.





NOTE

'Self Image Setting Function'? This function provides the user with optimal display settings. When the user connects the monitor for the first time, this function automatically adjusts the display to optimal settings for individual input signals. If you want to adjust the monitor while in use, or wish to manually run this function once again, push the 'SET/AUTO' button on the front panel of the monitor. Otherwise, you may execute the 'Factory reset' option on the OSD adjustment menu. However, be aware that this option initializes all the menu items except 'Language'.

To Use Touch Screen

Select and Install the driver CD provided.

ITM DRIVER



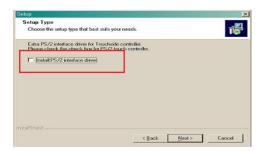
- 1) Insert the driver installation CD for the ITM touch screen.
- 2) See the touch screen software installation CD for more information and assistance.
- 3) Connect the USB cable or the RS-232C cable for the touch screen after the driver installation
- * The software drivers support the following Microsoft Windows operating systems: Windows 95, 98, Me, and NT 4.0.

Hantouch DRIVER

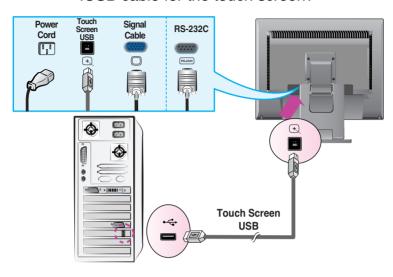
- 1) Connect the USB cable or the RS-232C cable for touch screen before installing the driver.
- 2) Insert the Hantouch touch screen driver installation CD.
- 3) Open the [My Computer] -> [LG Driver] -> [Drivers] folder, then select the driver appropriate for your OS.
- 4) For more information, see the installation manual in the touch screen software installation CD bundled with the product.
- * The software drivers support the following Microsoft Windows operating systems: Windows 95, 98, Me, and NT 4.0.

For more information about installation for other OS, see the driver installation CD.

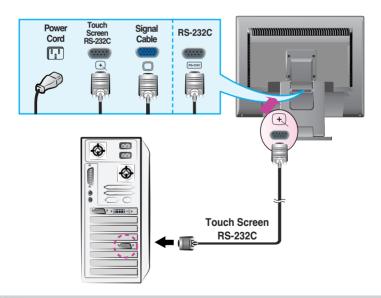
* Do not select "install PS/2 interface driver" while installing the touch screen driver for the Hantouch.



<USB cable for the touch screen >



< RS-232C cable for the touch screen >



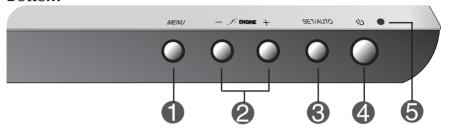
NOTE

•Your purchased product and its accessories may look different from the items illustrated in this manual.

Front Panel Controls



Bottom



Control Function Use this button to enter or



Use this button to enter or exit the On Screen Display.

OSD LOCKED/UNLOCKED



This function allows you to lock the current control settings, so that they cannot be inadvertently changed. Press and hold the **MENU button** for 5 seconds. The message **"OSD LOCKED"** should appear.

You can unlock the OSD controls at any time by pushing the **MENU button** for 5 seconds. The message **"OSD UNLOCKED"** should appear.



+ Buttons

Use these buttons to select or adjust functions in the On Screen Display.



For more information, refer to page A14.



Control Panel Functions

| Control | | Function | | |
|---------|----------------------------------|---|--|--|
| 3 | SET/AUTO Button | Use this button to enter a selection in the On Screen Display. | | |
| | PROCESSING AUTO IMAGE ADJUSTMENT | AUTO IMAGE ADJUSTMENT When adjusting your display settings, always press the SET/AUTO button before entering the On Screen Display(OSD). This will automatically adjust your display image to the ideal settings for the current screen resolution size (display mode). The best display mode is 17 inch monitor: 1280x1024 | | |
| 4 | Power Button | Use this button to turn the display on or off. | | |
| 6 | Power Indicator | This Indicator lights up green when the display operates normally(On Mode). If the display is in Sleep Mode (Energy Saving), this indicator color changes to amber. | | |

Screen Adjustment

Making adjustments to the image size, position and operating parameters of the display is quick and easy with the On Screen Display Control system. A short example is given below to familiarize you with the use of the controls. The following section is an outline of the available adjustments and selections you can make using the OSD.

NOTE

■ Allow the display to stabilize for at least 30 minutes before making image adjustments.

To make adjustments in the On Screen Display, follow these steps:

$$\texttt{MENU} \rightarrow \textbf{-} + \rightarrow \texttt{SET/AUTO} \rightarrow \textbf{-} + \rightarrow \texttt{MENU}$$

- Press the MENU Button, then the main menu of the OSD appears.
- 2 To access a control, use the or + Buttons. When the icon you want becomes highlighted, press the SET/AUTO Button.
- Use the / + Buttons to adjust the image to the desired level. Use the SET/AUTO Button to select other sub-menu items.
- Push the MENU Button once to return to the main menu to select another function. Push the MENU Button twice to exit from the OSD.

Automatic save

With the OSD open, once you have made an adjustment the monitor automatically save any adjustments you have made, even if you exit the menu or open another menu. If you make an adjustment and then wait for the OSD to disappear, the adjustment will also been saved.

The following table indicates all the On Screen Display control, adjustment, and setting menus.

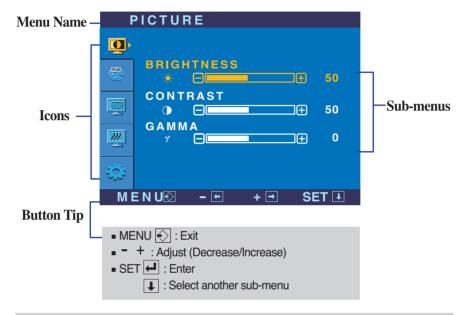
| Main menu | u Sub menu | | | Reference | |
|----------------|------------------|------------|---|----------------------------------|--|
| PICTURE | BRIGHTNESS | | | To adjust the brightness, | |
| | CONTRAST | | | contrast and gamma of the screen | |
| | GAMMA | | | 3013011 | |
| COLOR | PRESET | sRGB | | To customize the color of the | |
| | | 6500K | | screen | |
| | | 9300K | | | |
| | RED | | | | |
| | GREEN | | | | |
| | BLUE | | | | |
| POSITION | HORIZONTAL | | | To adjust the position of the | |
| | VERTICAL | | | screen | |
| TRACKING | CLOCK | | | To improve the clarity and | |
| | PHASE | | | stability, sharpness of the | |
| | SHARPNESS | | | screen | |
| SETUP | LANGUAGE | | | To customize the screen | |
| SEIGI | OSD | HORIZONTAL | | status for a user's operating | |
| | POSITIO | VERTICAL | • | environment | |
| | WHITE BALANCE | | | | |
| | POWER INDICATOR | | | | |
| | FACTORY RESET | | | | |
| | SET ID | | | | |
| FLATRON | ATRON MOVIE/TEXT | | | To select or customize | |
| F-ENGINE | USER | | | desired image settings | |
| , | NORMAL | | • | | |
| • : Adjustable | | | | | |

NOTE

■ The order of icons may differ depending on the model (A10~A14).

You were introduced to the procedure of selecting and adjusting an item using the OSD system. Listed below are the icons, icon names, and icon descriptions of the all items shown on the Menu.

Press the MENU Button, then the main menu of the OSD appears.



NOTE

■ OSD (On Screen Display) menu languages on the monitor may differ from the manual.

Main menu Sub menu Description **PICTURE BRIGHTNESS** To adjust the brightness of the screen. <u>o</u> To adjust the contrast of the screen. CONTRAST CONTRAST **● GAMMA** Set your own gamma value. : -50/0/50 GAMMA 111 On the monitor, high gamma values display whitish images and low gamma MENU® - F + F SET F values display high contrast images. ■ MENU : Exit - : Decrease + : Increase ■ SET: Select another sub-menu RGB COLOR **PRESET** · sRGB: Set the screen color to fit the COLOR SRGB standard color PRESET specification. • 6500K: Slightly reddish white. GREEN • 9300K: Slightly bluish white. 777 BLUE 50 RED Set your own red color levels. MENUÐ - Œ GREEN Set your own green color levels. ■ MENU : Exit Decrease Set your own blue color levels. BLUE + : Increase SET: Select another sub-menu **POSITION** POSITION **HORIZONTAL** To move image left and right. To move image up and down. **VERTICAL** VERTICAL MENU② - ⊕ + → SET Ⅰ ■ MENU : Exit - : Decrease + : Increase

SET : Select another sub-menu

Main menu Sub menu **Description** TRACKING CLOCK To minimize any vertical bars or stripes visible on the screen background. TRACKING The horizontal screen size will also O change. PHASE To adjust the focus of the display. PHASE This item allows you to remove any SHARPNESS horizontal noise and clear or sharpen the image of characters. MENU® -⊞ +⊞ SETⅡ **SHARPNESS** To adjust the clearness of the screen. MENU : Exit - : Decrease + : Increase SET : Select another sub-menu LANGUAGE To choose the language in which the **SETUP** control names are displayed. OSD To adjust position of the OSD window **POSITION** on the screen. If the output of the video card is different WHITE HORIZONTAL 50 **BALANCE** the required specifications, the color VERTICAL level may deteriorate due to video signal distortion. Using this function, the signal level is adjusted to fit into the Ö standard output level of the video card MENU⊚ SET I in order to provide the optimal image. SETUP Activate this function when white and 0 black colors are present in the screen. WHITE BALANCE ▶NO POWER INDICATOR **▶**ON **POWER** Use this function to set the power

INDICATOR

indicator on the front side of the monitor

to ON or OFF.

If you set OFF, it will go off.

If you set **ON** at any time, the power indicator will automatically be turned on.

■ MENU : Exit - : Adiust + : Adjust

Ö

FACTORY RESET

SET : Select another

sub-menu

MENU® - ₩ + ₩ SET®

►NO

FACTORY RESET

Restore all factory default settings except "LANGUAGE."

Press the + button to reset immediately.

SET ID

You can assign a unique SET ID NO (name assignment) to each monitor when several monitors are connected for display. Specify the number $(0 \sim 99)$ using the -, +button and exit. Use the assigned SET ID to individually control each monitor using the Monitor Control Program.

If this does not improve the screen image, restore the factory default settings. If necessary, perform the white balance function again. This function will be enabled only when the input

signal is an analog signal.

■■ The OSD screen will appear when you press the fending button on the front of the monitor



FLATRON F-ENGINE

When you execute F-ENGINE, two tone will appear on the screen as shown in the picture. The applied screen will appear on the left side, whereas the non-applied screen will appear on the right side. Press the SET button to use the adjusted screen.



Main menu

Sub menu

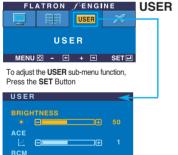
Description



MOVIE TEXT This feature lets you easily select the best image setting, which is optimized to the environment (ambient illumination, image types, etc.).

MOVIE: For animation images in videos or movies.

TEXT: For text images (Word processing, etc.)



R User

You can manually adjust the brightness, ACE or RCM. You can save or restore the adjusted value even when in a different environment.

··· • (Brightness): Adjusts screen brightness.

···ACE (Adaptive Clarity Enhancer): Selects the clarity mode.

"RCM (Real Color Management): Selects the color mode.



Select the SAVE sub-menu using the SET button and save the YES value using the buttons.



MENU Ø - ₾ + ◑ SET ₺

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SAVE

NORMAL This is under normal operating conditions.

Check the following before calling for service.

No image appears

- Is the power cord of the display connected?
- Check and see if the power cord is connected properly to the power outlet.
- Is the power on and the power indicator blue or green?
- Adjust the brightness and the contrast.
- Is the power indicator amber?
- If the display is in power saving mode, try moving the mouse or pressing any key on the keyboard to bring up the screen.
- Try to turn on the PC.
- Do you see an "OUT OF RANGE" message on the screen?
- This message appears when the signal from the PC (video card) is out of horizontal or vertical frequency range of the display. See the 'Specifications' section of this manual and configure your display again.
- Do you see a "CHECK SIGNAL CABLE "message on the screen?
- This message appears when the signal cable between your PC and your display is not connected. Check the signal cable and try again.

Do you see a "OSD LOCKED" message on the screen?

- Do you see "OSD LOCKED" when you push MENU button?
- You can secure the current control settings, so that they cannot be inadvertently changed. You can unlock the OSD controls at any time by pushing the MENU button for 5 seconds. The message "OSD UNLOCKED" should appear.

Display image is incorrect

- Display Position is incorrect.
- Press the SET/AUTO button to automatically adjust your display image to the ideal setting.
 If the results are unsatisfactory, adjust the image position using the H position and V position icon in the on screen display.
- Check Control Panel --> Display --> Settings and see if the frequency or the resolution were changed. If yes, readjust the video card to the recommend resolution.
- On the screen background, vertical bars or stripes are visible.
- Press the SET/AUTO button to automatically adjust your display image to the ideal setting.
 If the results are unsatisfactory, decrease the vertical bars or stripes using the CLOCK icon in the on screen display.
- Any horizontal noise appearing in any image or characters are not clearly portraved.
- Press the SET/AUTO button to automatically adjust your display image to the ideal setting.
 If the results are unsatisfactory, decrease the horizontal bars using the PHASE icon in the on screen display.
- Check Control Panel --> Display --> Settings and adjust the display to the recommended resolution or adjust the display image to the ideal setting. Set the color setting higher than 24 bits (true color).
- The screen color is mono or abnormal.
- Check if the signal cable is properly connected and use a screwdriver to fasten if necessary.
- Make sure the video card is properly inserted in the slot.
- Set the color setting higher than 24 bits (true color) at Control Panel - Settings.
- The screen blinks.
- Check if the screen is set to interlace mode and if yes, change it to the recommend resolution.

Have you installed the display driver?

- Have you installed the display driver?
- Be sure to install the display driver from the display driver CD (or diskette) that comes with your display. Or, you can also download the driver from our web site: http://www.lge.com.
- Do you see an "Unrecognized monitor, Plug&Play (VESA DDC) monitor found" message?
- Make sure to check if the video card supports Plug&Play function.

Touch screen does not work.

- Did you install the touch screen driver?
- Install the touch screen driver on the installation CD bundled with the product.
- Make sure that the USB cable or the RS-232C cable for touch screen is connected to your PC.
- Make sure your PC and accessories are USB-enabled or support RS-232C.

| Display | 17 inches (43.2cm) Flat Panel Active matrix-TFT LCD Anti-Glare coating 17 inches viewable 0.264 mm pixel pitch | | | |
|--|---|--|--|--|
| Sync Input | Horizontal Freq. | 30 - 83kHz (Automatic) | | |
| | Vertical Freq. Input Form | 56 - 75Hz (Automatic) | | |
| | input Form | Separate TTL, Positive/Negative Composite TTL, Positive/Negative SOG (Sync On Green) | | |
| Video Input | Signal Input | 15 pin D-Sub Connector | | |
| Tideo iripat | Input Form | RGB Analog (0.7) | Vp-p/75ohm) | |
| Resolution | Max | VESA 1280 x 102 | 24@75Hz | |
| | Recommend | VESA 1280 x 1024@60Hz | | |
| Plug&Play | DDC 2B | | | |
| Power | On Mode : 35W | | | |
| Consumption | Sleep Mode ≤ 2W | | | |
| | Off Mode | ≤ 1W | | |
| Dimensions &Weight (with tilt stand) | Full | Jp Position | Folded Position | |
| | Height 39.00 | cm / 15.67 inches cm / 15.35 inches cm / 8.98 inches 6.7 kg (14.77 lbs) | 39.80 cm / 15.67 inches 11.76 cm / 4.63 inches 32.90 cm / 12.95 inches | |
| Tilt Range | Tilt Range Height Range Rotate | -20°~140° (Head) 2.41inch (61.3mm) 90° clockwise (Landscape->Portrait) | | |
| Power Input | AC 100-240V~ 50/60Hz 1.0A | | | |
| Environmental Conditions | Operating Conditions Temperature 10°C to 35 °C Humidity 10 % to 80 % non-Condensing | | | |
| | Storage Condition Temperature Humidity | ons e -20°C to 60°C 5 % to 90 % non-Condensing | | |
| Tilt Stand | Attached(), Detachable (O) | | | |
| Power cord | Wall-outlet type or PC-outlet type | | | |

NOTE

■ Information in this document is subject to change without notice.

Preset Modes (Resolution)

| Display Modes (Resolution) | | s (Resolution) | Horizontal Freq. (kHz) | Vertical Freq. (Hz) |
|----------------------------|------|----------------|------------------------|---------------------|
| 1 | VGA | 640 x 350 | 31.469 | 70 |
| 2 | VGA | 720 x 400 | 31.468 | 70 |
| 3 | VGA | 640 x 480 | 31.469 | 60 |
| 4 | VESA | 640 x 480 | 37.500 | 75 |
| 5 | VESA | 800 x 600 | 37.879 | 60 |
| 6 | VESA | 800 x 600 | 46.875 | 75 |
| 7 | MAC | 832 x 624 | 49.725 | 75 |
| 8 | VESA | 1024 x 768 | 48.363 | 60 |
| 9 | VESA | 1024 x 768 | 60.023 | 75 |
| 10 | MAC | 1152 x 870 | 68.681 | 75 |
| 11 | VESA | 1152 x 900 | 61.805 | 65 |
| *12 | VESA | 1280 x 1024 | 63.981 | 60 |
| 13 | VESA | 1280 x 1024 | 79.976 | 75 |

^{*}Recommend Mode

Indicator

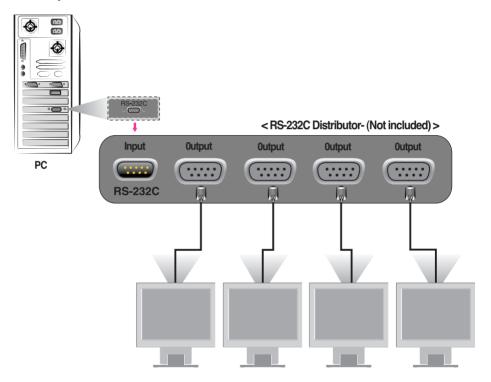
| MODE | LED Color |
|------------------------|----------------|
| On Mode | green amber |
| Sleep Mode Off Mode | off |

Use this method to connect several monitors to a single PC. You can control several monitors at a time by connecting them to a single PC.

Connecting the cable

Connect the RS-232C cable as shown in the picture.

* The RS-232C protocol is used for communication between the PC and monitor. You can turn the monitor on/off, select an input source or adjust the OSD menu from your PC.



Communication Parameter

▶ Baud Rate : 9600bps
▶ Data Length : 8bits
▶ Parity Bit : NONE
▶ Stop Bit : 1bit
▶ Flow Control : NONE



Command Reference List

| | COMMAND1 | COMMAND2 | DATA(Hexa) |
|----------------|----------|----------|------------|
| 01. Power | k | а | 0, 1 |
| 02. Contrast | k | g | 0 - 64 |
| 03. Brightness | k | h | 0 - 64 |
| 04. Color | k | u | 0, 2 |



Transmission / Receiving Protocol

Transmission

[Command1][Command2][][Set ID][][Data][Cr]

- * [Command 1]: First command.
- * [Command 2]: Second command.
- * [Set ID]: You can adjust the set ID to choose desired monitor ID number in Setup menu. Adjustment range is 0~99. When selecting Set ID '0', every connected monitor set is controlled. Set ID is indicated as decimal (0~99) on menu and as Hexa decimal (0x0~0x63) on transmission/receiving protocol.
- * [DATA]: To transmit command data.

Transmit 'FF' data to read status of command.

* [Cr]: Carriage Return ASCII code '0x0D'

* []: ASCII code Space (0x20)'

OK Acknowledgement

[Command2][][Set ID][][OK][Data][x]

* The Monitor transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

Error Acknowledgement

[Command2][][Set ID][][NG][Data][x]

* The Monitor transmits ACK (acknowledgement) based on this format when receiving abnormal data from non-viable functions or communication errors.

Data 1: Illegal Code

2: Not supported function

3: Wait more time



Transmission / Receiving Protocol

Power On (Command:a)

▶ To control Power On/Off of the monitor.

Transmission

[k][a][][Set ID][][Data][Cr]

Data 0 : Power Off 1 : Power On

<u>Acknowledgement</u>

[a][][Set ID][][OK][Data][x]

▶ To show Power On/Off.

Transmission

[k][a][][Set ID][][FF][Cr]

Data 0 : Power Off 1 : Power On

Acknowledgement

[a][][Set ID][][OK][Data][x]

Contrast (Command:g)

▶ To adjust screen contrast. You can also adjust contrast in the Contrast/Brightness menu.

Transmission

[k][g][][Set ID][][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping' as shown below.

<u>Acknowledgement</u>

[g][][Set ID][][OK][Data][x]

* Real data mapping

0 : Step 0

A : Step 10 (SET ID 10)

F: Step 15 (SET ID 15) 10: Step 16 (SET ID 16)

:

64: Step 100



Transmission / Receiving Protocol

Brightness (Command:h)

▶ To adjust screen brightness.

You can also adjust brightness in the Contrast/Brightness menu.

Transmission

[k][h][][Set ID][][Data][Cr]

Data Min: 0 ~ Max: 64

• Refer to 'Real data mapping' as shown below.

Acknowledgement

[h][][Set ID][][OK][Data][x]

* Real data mapping

0: Step 0

A: Step 10 (SET ID 10)

F: Step 15 (SET ID 15) 10 : Step 16 (SET ID 16)

64: Step 100

Color (Command:U)

▶To adjust the screen color.

You can also adjust color in the Color adjustment menu.

Transmission

[k][u][][Set ID][][Data][Cr]

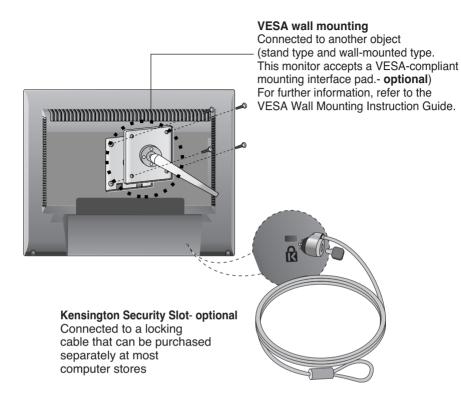
Data 0: User

1:6500K 2:9300K

<u>Acknowledgement</u>

[u][][Set ID][][OK][Data][x]

How to Install the VESA Standard wall mounting



Digitally yours •••••····

